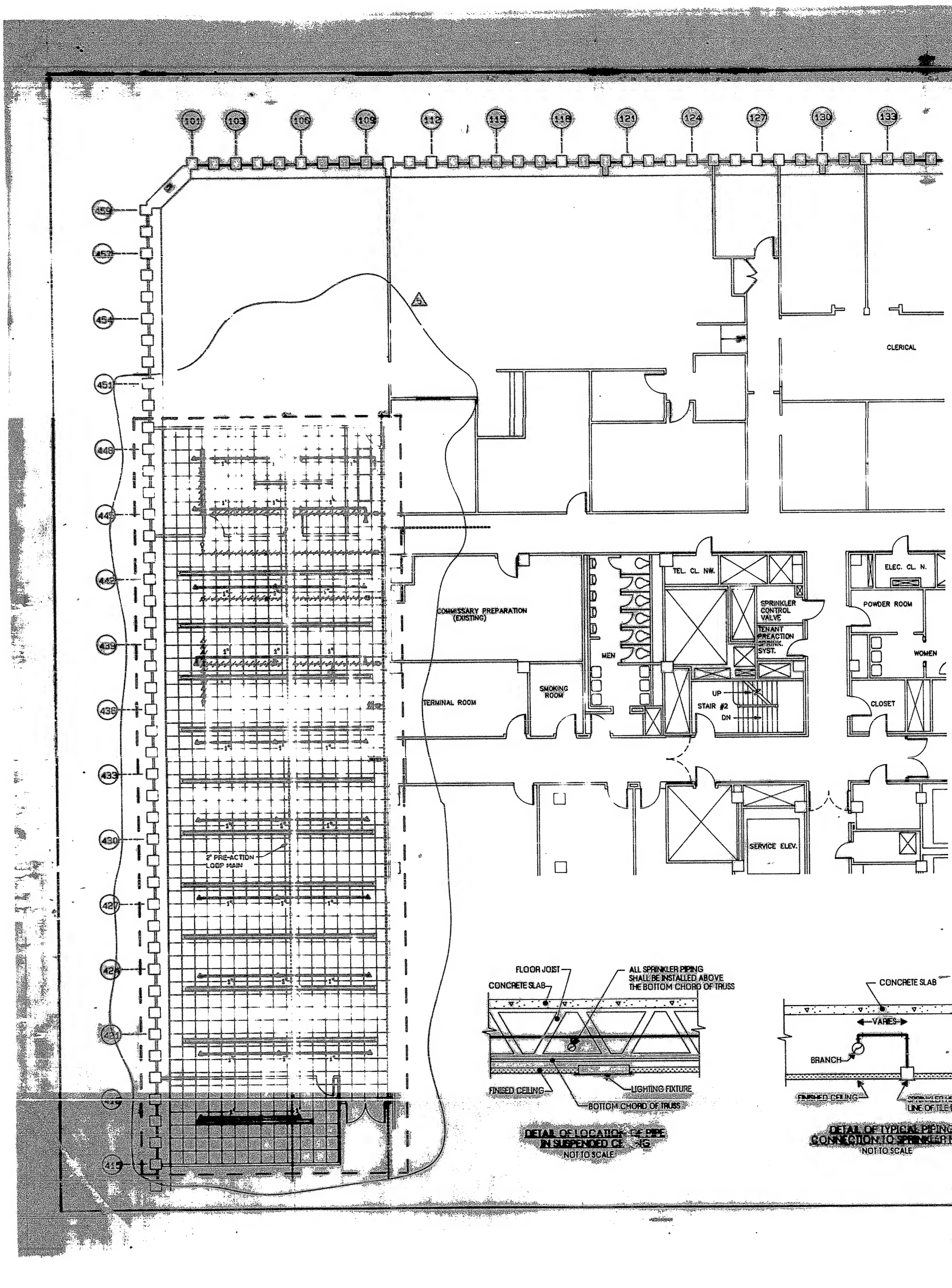


DETAIL OF LOCATION OF PIPE IN SUSPENDED CEILING
NOT TO SCALE

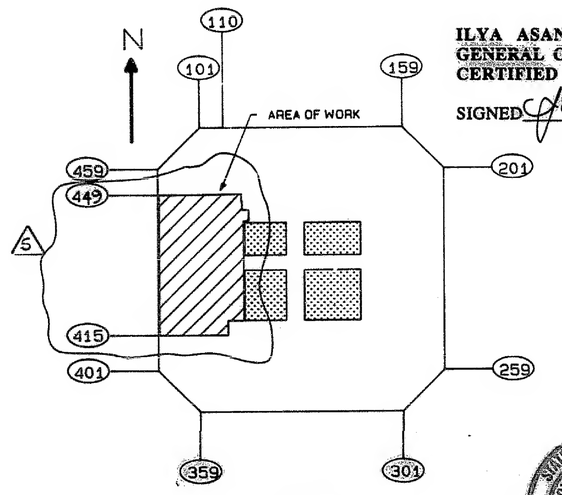
DETAIL OF TYPICAL PIPING CONNECTION TO SPRINKLER HEAD
NOT TO SCALE

SPRINKLER SPECIFICATION

1. Shutdown of existing system: At the time that such closing or opening of va draindown becomes necessary, the Contractor shall notify the WTC Constr Division (at least 48 hours in advance) who will make the necessary arrangements. The Contractor shall keep the shutdown time to a minimum drainage shall be to a properly connected receptacle without causing d to other work and property
2. Heads: Sprinkler Heads shall be Reliable Automatic Sprinkler Co. conceal Model "G4", 165 degree F rating, 1/2" orifice BS & A #587-75-SA or approve Polished chrome. New sprinkler heads shall be installed whether heads ar as new or relocated, as per NFPA 13, Section 1-8.1.1.
3. Pipe and Fittings: Piping shall be Schedule 40, standard weight, black steel ASTM standard A795/53. Fittings shall be cast iron, 175 lbs. class threaded.
4. All horizontal piping parallel to and within 15'-0" of exte walls shall be insul with 1" fiberglass insulation.
5. Piping and fittings shall be insulated where required by the contract drawin one inch (1") thick heavy density fiberglass pipe covering with factory app service jacket (ASJ), self-sealing lap and butt strips bonded with aluminum (2" on centers), and pre-molded fiberglass for fittings. Insulation shall be s respects to that manufactured by Owens-Corning Fiberglass. Insulation (in jacket or facing and adhesive) shall have a flame spread rating not grea 25, smoke developed rating 50.
6. Piping shall be installed to drain back to flow control valve
   a) Loop main shall be above bottom chord of truss.
   b) Branch lines shall run through bridging trusses
7. Flushing: Before final connections and sprinkler heads are installed, all pipin be thoroughly blown out, rodded out, and washed out at least twice in a as directed by the Engineer to remove all accumulation of dirt, chips or ot deleterious material. Make all temporary connections and furnish all appli required for the purpose of cleaning at no extra expense to the Authority.
8. Pipe passing through walls shall have a trim opening cut no greater than necessary for the installation of a sleeve secured therein. Sleeves shall be of Schedule 40 galvanized steel pipe for floor slabs and 20 gauge sheet m framed partitions. Sleeves shall be 1/2" in diameter larger the outside diam the pipe or required insulation passing through, and of sufficient length to b with the finished wall surface. Annular spaces between piping and sleeves drilled floor openings shall be packed with thermafiber and sealed to reta fire integrity of the walls and floors with a non-hardening compound similar equal to Duxseal as manufactured by J. M. Clipper Co.
9. Hangers: Install suitable clevis type hangers supported from the existing bu steel framing. Drilling/anchoring systems will be permitted. Drilling only whe approved by the Engineer. Use Hilti HDU anchors.

Pipe Size	Max. Hanger Spacing	Min. Rod Size
1"	8'-0" O.C.	3/8"
1-1/4" to 2"	10'-0" O.C.	3/8"
2-1/2" to 3"	12'-0" O.C.	1/2"

10. All piping shall be installed above the bottom chord of the trusses.
11. Test: Entire installation shall be tested hydrostatically and remain tight with n pressure for a period of no less than two (2) hours against a pressure of 200 Remaining portion of the floor system shall be isolated from the testing pr Testing shall be performed in the presence of the Engineer and Port Autho Inspector. At least (48) hours notice shall be given in advance of all tests.
12. Code: Entire installation shall comply with all provisions of the NYC Building
13. Affix identification markers on all sprinkler piping. Makers shall be at 10' - on c Makers shall be Brady Snap-On, Type 8, W.H. Brady Co. Sign Mark Division Markers shall read "SPRINKLER PIPING".
14. Disturbance of structural fireproofing shall be kept in a minimum and prec shall be observed for work above the ceiling.
15. Contractor shall submit detailed shop drawings to the Engineer for appro work shall commence until approval is obtained.
16. All unused piping, ductwork, hangers, supports, shall be completely remo the way back to the core riser closet, or back to the nearest branch main capped, sealed watertight or airtight. All the openings shall be properly p sealed, and fire stopped to maintain the original integrity of the partition's rating.
17. Contractor shall provide a hydraulic calculation to verify pipe size. The hy calculation shall include:
   a) available static pressure on the floor.
   b) the minimum water supply requirement density, gpm per square foot.
   c) area of hydraulic demand.
   d) occupancy hazard classification.
   e) sprinkler piping and fittings material.
   f) all existing piping sizes.



AREA OF WORK
KEY PLAN
#1 W. T. C. FLOOR 105

ILYA ASAN
GENERAL C
CERTIFIED

SIGNED